

CONTENT STANDARD 9: Transportation Systems

Students will understand transportation systems and the environments used to move goods and people, and the subsystems common to each.

K - 12 PERFORMANCE STANDARDS

<p>Educational experiences in Grades K-4 will assure that students:</p> <ul style="list-style-type: none"> • define <i>technological system</i>; • identify the parts of a system; • use a technological system; • describe the function of various systems; • describe the input, process, output, feedback (IPOF) system model; and • demonstrate an IPOF system. 	<p>Educational experiences in Grades 5-8 will assure that students:</p> <ul style="list-style-type: none"> • differentiate between vehicular and stationary transportation systems; • differentiate between fixed and random-route land transportation systems; • describe and be able to identify the transportation subsystems of body/frame, propulsion, suspension, control, guidance and support in a variety of transportation devices; • explore the characteristics of lighter than air and heavier than air atmospheric transportation systems; • apply the concept of transportation subsystems while solving transportation problems; • identify and experiment with devices used to protect product and personnel in transportation systems; and • explore, build and experiment with model marine, space, land and air transportation systems. 	<p>Educational experiences in Grades 9-12 will assure that students:</p> <ul style="list-style-type: none"> • identify and describe the historical innovations in the evolution of transportation systems and their impact on our society, economy and environment; • understand the principles of aerodynamics; • design, fabricate, test and evaluate a land, atmospheric, marine and space transportation system; • identify and explore solutions to future global transportation problems; • explore and experiment with traditional and alternative fuels; and • describe how pneumatic, hydraulic, mechanical and electrical energy are used in transportation systems.
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